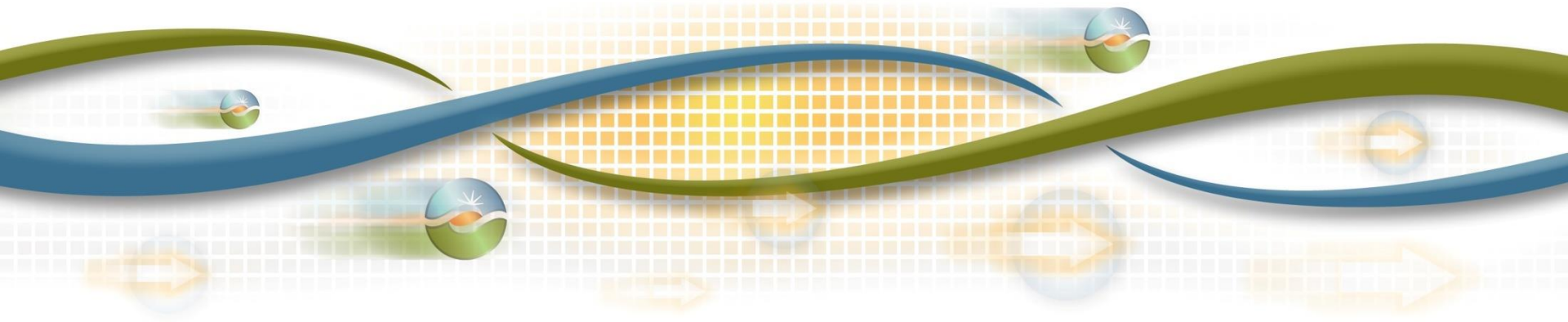


Overview of the 50% Special Study

Performed as part of 2015-2016 Transmission Planning Process

June 29, 2015



Objective

- ❑ Investigate the feasibility and implications of moving beyond 33% using Energy Only (EO) procurement
- ❑ Test the transmission capability numbers used in RPS calculator v6 and update these inputs for future use
- ❑ Informational effort –
 - will not provide basis for procurement/build decisions in 2015-16 TPP cycle
 - Will be used to develop portfolios for consideration by CAISO in future TPP cycles

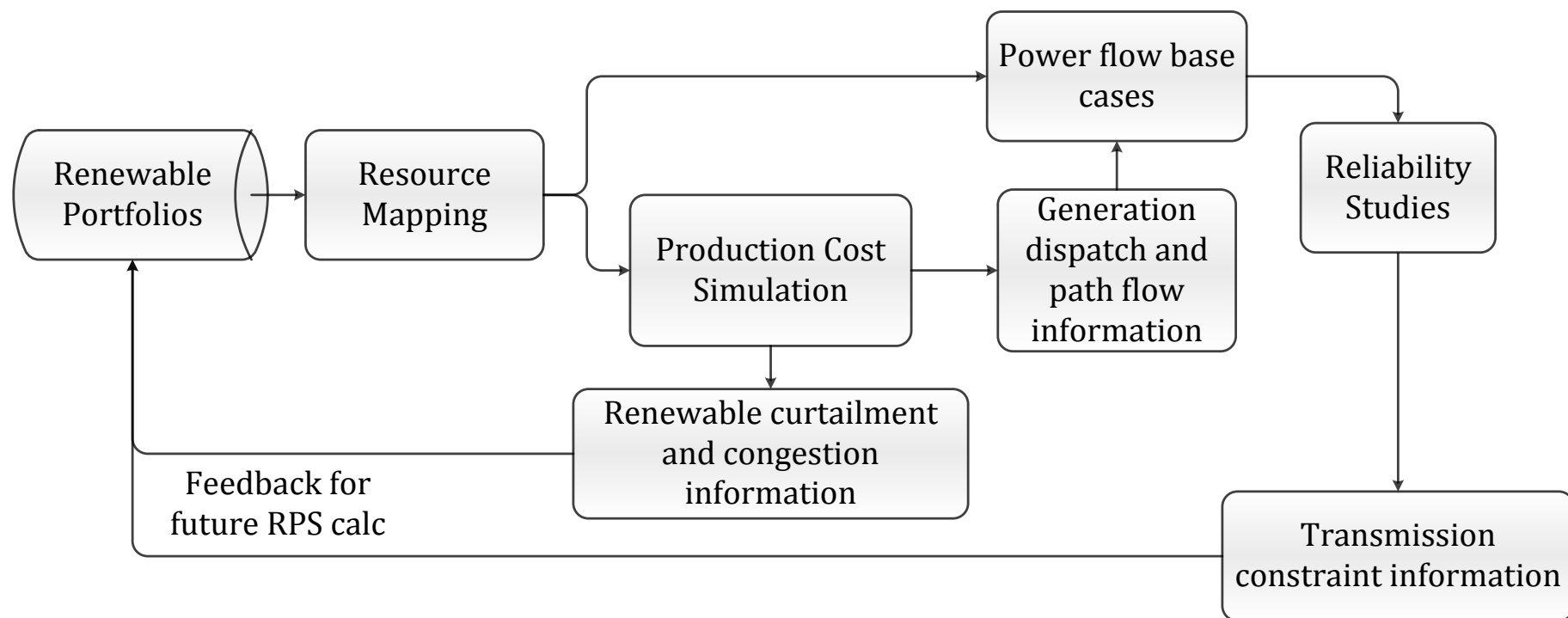
Study Scope

- ☐ Two portfolios will be studied
 - In-state Energy Only
 - Out-of-state Energy Only
- ☐ Resource mapping
- ☐ Production cost simulation
- ☐ Reliability studies (Power flow, post-transient, transient stability)
- ☐ Identification of renewable curtailment, congestion and transmission constraints that may limit renewable generation development

Study Approach

- ❑ Resource mapping will use information from the existing ISO queue and geographical information provided by CPUC
- ❑ Renewable generation incremental to 33% RPS will be assumed to be EO
- ❑ Production cost simulation output is expected to
 - Inform power flow cases (generation dispatch and major path flows)
 - Inform us about overall renewable curtailment in the in-state and out-of-state portfolio
- ❑ Reliability assessment will involve identification of constraints that
 - May limit considerable amount of generation
 - Would need expensive upgrades
- ❑ Such constraints will form the basis for the transmission inputs to the RPS calculator for future use

Special Study Overview



Questions?